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(54) Title: SINGLE STEP PROCESS FOR THE PREPARATION OF LOWER  $\alpha$ -ALKENE POLYMERIZATION HETEROGENEOUS SOLID CATALYST

(57) Abstract: Single step process for the preparation of lower  $\alpha$ -alkene polymerisation heterogeneous solid catalyst, wherein the procatalyst is obtained by reacting organomagnesium precursor and titanium tetrahalide or titanium haloalkoxo species of the formula  $Ti(OR)_m X_n$ , with a hydrocarbon or haloalkohydrocarbon solvent and internal electron donor and optionally an acid halide under microwave irradiation of 300 to 1200 W. The mole ratio of the organomagnesium precursor to the titanium tetrachloride or titanium haloalkoxo species is 1: 6 to 1:20 and the mole ratios of the electron donor and acid halide to titanium is 0.3 to 1.5 and 0.02 to 0.2, respectively.